UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2178	25

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2003* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   This action is responsive to the RCE filed on 1/14/2003.

This action is made Non-Final.

2.   In the amendment, claims 1-31 are pending in the case. Claims 1, 3, 8-9, 11, 16-19, and

30-31 are independent claims.

Priority

3.   Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d), and based on application # 09-242247 filed in Japan on 9/8/1997, which

papers have been placed of record in the file.

Drawings

4.   This application has been filed with informal drawings which are acceptable for

examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-31 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan

(Pat. # 5,933,599, 8/3/1999, filed on 7/17/1995), in view of Knowles et al, hereinafter Knowles

(Pat. # 5,905,863, 5/18/1999, filed on 5/30/1997), and further in view of Bailey et al, hereinafter

Bailey (Pat. # 5,845,084, 11/10/1998, filed on 5/1/1996)

Regarding independent claim 1, Nolan discloses the display of a group of bulletin board

documents where the documents contributed earlier are referenced to by documents published

later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *determining for each*

document in the set, which of the documents is referenced. Knowles teaches the organization of

bulletin board messages using various type of information, such as the subject matter of the

messages (c.1, L.63-c.2,L.67). It would have been obvious to a person of ordinary skill in the art

at the time of the invention to have combined the teachings of Nolan, and Knowles, because

Knowles teaches the "filtering of messages to achieve a significant level of accuracy at

identifying when one message is a reply to another" (col. 3, lines 60-64), such as sorting the

messages found in a bulletin board the type disclosed by Nolan.

Furthermore, Nolan the extraction and display of the subject—title keywords-- of email

documents posted in a bulletin board directory (col. 2, lines 30-67, and fig.9-10). Nolan fails to

explicitly disclose *extract keywords contained in the body of a document, and display keywords*

extracted from the document corresponding to the title...the title and the keywords displayed in

areas related to each other. Bailey teaches a preview pane for displaying a message's extracted

keywords along with the title of the message (col. 2, lines 44-67, and FIG. 3). It would have

been obvious to a person of ordinary skill in the art at the time of the invention to have combined

the teachings of Nolan, Knowles, and Bailey, because Bailey teaches above the previewing of messages without having to open them in a separate window.

Claim 2 is directed towards an apparatus for displaying a group of documents as recited in the rejection of claim 1, and is therefore rejected on the same basis.

Regarding independent claim 3, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *determining for each document in the set, which of the documents is referenced.* Knowles teaches the organization of bulletin board messages using various type of information, such as the subject matter of the messages (c.1, L.63-c.2,L.67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64), such as sorting the messages found in a bulletin board the type disclosed by Nolan.

Moreover, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *a document attribute analysis device to extract document attribute information.* Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads...statistical information retrieval techniques are used in conjunction with textual material obtained by filtering of messages" (col. 1, L.63-col.2, L.67, col.4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at

the time of the invention to have combined the teachings of Nolan, and Knowles, because

Knowles teaches the "filtering of messages to achieve a significant level of accuracy at

identifying when one message is a reply to another" (col. 3, lines 60-64).

Furthermore, Nolan teaches the display of "bulletin board navigator" (col. 11, lines 43-

67, and FIG. 9)-- *a document group structure display device to display cross-references in each*

group of documents ....

Regarding claim 4, which depends on claim 3, Nolan teaches the display of "bulletin

board navigator"--*The apparatus....displays the cross-references in each group of documents in*

a tree structure .... (col. 11, lines 43-67, and FIG. 9, 902, FIG. 10, 1004).

Regarding claim 5, which depends on claim 3, Nolan discloses the display of a tree

directory showing different categories of documents, and a plurality of topics extracted from

published bulletin board documents (fig. 9-10, and col.2, lines 30-67)-- *The apparatus.....said*

document group structure display device further displays a plurality of topics..........

Regarding claim 6, which depends on claim 5, Nolan discloses the display of a tree

directory showing different categories of documents, and a plurality of topics extracted from

published bulletin board documents in the same color (fig. 9-10, and col.2, lines 30-67)--*The*

apparatus.....said document group structure display device displays each topic and a relevant

node ....

Regarding claim 7, which depends on claim 3, Nolan teaches the display of "bulletin

board navigator" (col. 11, lines 43-67, and FIG. 9, 208)--*The apparatus.....said document group*

structure display device displays with enhancement a node corresponding to a document ....

Regarding independent claim 8, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67)--*a document group analysis device to classify a plurality of documents forming a set of documents into at least one group of cross-referenced documents ....* Nolan fails to explicitly disclose *determining for each document in the set, which of the documents is referenced.* Knowles teaches the organization of bulletin board messages using various type of information, such as the subject matter of the messages (c.1, L.63-c.2,L.67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64), such as sorting the messages found in a bulletin board the type disclosed by Nolan.

Moreover, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *a topic analysis device to further classify each group of cross-referenced documents based on topics extracted from each document, and a topic keyword extraction device.* Knowles teaches "the filtered potential parent messages....are then passed along...The child, or reply, message...is also processed" (c.1, L.63-c.2,L.67, c. 7, L. 56-67, and c. 8, L.1-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Furthermore, Nolan teaches the display of "bulletin board navigator" (col. 11, lines 43-

67, and FIG. 9)--*a topic keyword display device for displaying ... ...a relevant title and a keyword*

extracted—

Claims 9-11, 12, 13-18 are directed towards a relevant document display method for

implementing the apparatus found in claim 1-3, 4-8, 1, and 3 respectively, and therefore are

similarly rejected.

Regarding independent claim 19, Nolan teaches "bulletin board navigator" where

messages submitted earlier are referenced to by messages submitted later (col. 11, lines 43-67,

and FIG. 9)--*displaying on a display device a group of documents containing cross-referenced*

message document....of a forum and a message board...a document contributed earlier is

referenced by documents contributed afterwards.

Moreover, Nolan discloses the display of a group of bulletin board documents where the

documents contributed earlier are referenced to by documents published later (fig. 9-10, and

col.2, lines 30-67). Nolan fails to explicitly disclose *a contents estimation device to estimate*

topic patterns of the cross-referenced message documents.....plural types of display indexes

corresponding to the topic patterns. Knowles teaches "the present invention utilizes textual

context and characteristics of messages in order to provide a more reliable and effective way to

construct message threads...statistical information retrieval techniques are used in conjunction

with textual material obtained by filtering of messages....identifying when a message was a

response to another" (c.1, L.63-c.2,L.67, c.4, L.8-67, and c.5, L. 1-13). It would have been

obvious to a person of ordinary skill in the art at the time of the invention to have combined the

teachings of Nolan, and Knowles, because Knowles teaches the "filtering of messages to achieve

a significant level of accuracy at identifying when one message is a reply to another" (col. 3,

lines 60-64).

Moreover, Nolan discloses the retrieval from a database and display of a group of bulletin

board documents where the documents contributed earlier are referenced to by documents

published later (fig. 9-10, and col.2, lines 30-67)--*an input device to input a retrieval request and*

retrieval engine device to retrieve a document in the document database.

Furthermore, Nolan discloses the display of a group of bulletin board documents where

the documents contributed earlier are referenced to by documents published later (fig. 9-10, and

col. 11, lines 43-67) -- *a view generation device to generate plural types of views... ....*

Regarding claim 20, which depends on claim 19, Nolan discloses the display of a group

of bulletin board documents where the documents contributed earlier are referenced to by

documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus....view generation*

means allows a user to easily understand an entire structure of reference.

Regarding claim 21, which depends on claim 19, Nolan discloses the display of a group

of bulletin board documents where the documents contributed earlier are referenced to by

documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.... displays a*

reference tree structure of displayed documents.

Regarding claim 22, which depends on claim 19, Nolan discloses the display of a group

of bulletin board documents, in a tree structure, where the documents contributed earlier are

referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The*

apparatus.... displays a reference tree structure of displayed documents... ... ...containing user

input keyword.

Regarding claim 23, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, in an easy-to-understand tree format, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus....so that a user to easily understand an entire structure of reference...pattern estimated about the documents by said contents estimation means.*

Regarding claim 24, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, in a calendar format, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.........device displays in a calendar format......*

Regarding claim 25, which depends on claim 19, Nolan discloses the document intensity display—208—for displaying a specific topic pattern in the bulletin board (fig. 9-10, and col. 11, lines 43-67)--*The apparatus....device displays, at a high intensity level, a specified topic pattern.*

Regarding claim 26, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, related to a question and answer topic so as to be understood by a user, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus........retrieve only a document corresponding to a question and answer in a specified topic pattern......*

Regarding claim 27, which depends on claim 19, Nolan discloses the display the author of a document at high intensity when selected by a user (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.... device displays a specified author at a high intensity level based on a history of input opinions....*

Regarding claim 28, which depends on claim 19, Nolan discloses the display of a group

of bulletin board documents where the documents contributed earlier are referenced to by

documents published later (fig. 9-10, and col. 11, lines 43-67)-- *said view generation device*

displays as a directed graph an author of each document.

Claims 29-30 are directed towards a method of displaying a relevant document for

implementing the apparatus found in claim 19, and therefore are similarly rejected.

Claim 31 is directed towards a computer-readable storage medium for storing the

apparatus found in claim 19, and is similarly rejected.

Response to Arguments

7.   Applicant's arguments filed 1/14/2003 have been fully considered but they are not

persuasive. Regarding claims 1-2, the Applicants remark that Nolan does not provide teaching

for the extraction of keywords from the body of an email message (p.5,L.25-p.6,L.28). The

Applicants are directed towards the rejection of this newly introduced as outlined above.

Regarding claims 3-7, the Applicant indicates that Nolan does not teach the display

attribute information at a corresponding node (p.7,L.11-18, p.8,L.1-4). The Examiner disagrees,

because Nolan teaches the display of a document tree with attribute information corresponding to

that node (c.11,L.43-67, fig.9).

Regarding claim 8, the Applicant asserts that the prior art of record does not teach the

extraction of keywords from the body of a document (p.8,L.6-19). The Applicant is directed

towards the rejection of this newly added limitation above as necessitated by the amendment .

Regarding claims 9-18, the Applicant notes that the prior art of record does not teach the

extraction of keywords from the body of a document, and the display of a title, and keywords

extracted from the document (p.9,L.14-p.12,L.11). The Applicant is directed towards the

rejection of this newly added limitation above as necessitated by the amendment.

Regarding claims 19-29, the Applicant notes that Knowles fails to teach the topic pattern

which indicate details shift from one message to another (p.12,L.21-p.13, L.18). The Examiner

disagrees, because Knowles teaches the estimation of topic patterns or textual context and

characteristics of messages (c.4,L.8-c.5,L.13), which would be used displayed in indexes such as

outlined by Nolan.

Claims 30-31 are rejected at least for the same reasons expressed above.

Conclusion

I.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Kavner (Pat. # 6,430,607), and Maurille (Pat. # 6,484,196).

II.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cesar B. Paula whose telephone number is (703) 306-5543. The

examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m.

(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Herndon, can be reached on (703) 308-5186. However, in such a case, please allow at

least one business day.

Any inquiry of a general nature or relating to the status of this application or proceeding should

be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this Action should be mailed to:

      Director United States Patent and Trademark Office

      Washington, D.C. 20231

    Or faxed to:

- **(703) 746-7238**, (for **After Final** communications intended for entry)

- **(703) 746-7239**, (for **Formal** communications intended for entry, **except formal After Final communications**)

    Or:

- **(703) 746-7240**, (for **Informal or Draft** communications for discussion only, please label "**PROPOSED**" or "**DRAFT**").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

CBP

3/21/03

STEPHEN S. HONG
PRIMARY EXAMINER